

Work Order ID 165248

Thursday, August 17, 2017 10:37:08 AM

165248

Page 1

Item ID: D4018-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib
Start Date: 8/17/2017 Start Qty: 21.00 ***21*** Cust Item ID:
Required Date: 8/18/2017 Req'd Qty: 21.00 ***21*** Customer:
Reference:

Approvals: Process Plan: DAS 21 Date: AUG 17 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4018	E								
100		0.00							
100									
Large Fab	Memo	1.26							
Large Fab	1- Cut tube as per dwg D4018 2- debur and remove identification markings								
110	QC6- All purchased or subcontracted products	0.00							
110									
QC	Memo	0.00							
Quality Control									
120	Identify as per dwg & Stock Location: <u>WA004</u>	0.00							
120									
Packaging	Memo	0.21							
Packaging	LOCATION: WA004								

21x D.M.L 2017-8-22

21

DAS 38 9-89
AUG 22 2017

21x D.M.L 2017-8-23

Work Order ID 165248

Thursday, August 17, 2017 10:37:08 AM

165248

Page 2

Item ID: D4018-5 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Rib
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC21 - Final Inspection - Work Order Release	0.00							
130									
QC	Memo	2.10							
Quality Control									

um

AUG 24 2017

DAS
21
9-89

Picklist Print

Thursday, August 17, 2017 10:37:11 AM

Page 1

Work Order ID: 165248

165248

Parent Item: D4018-5

D4018-5

Parent Item Name: Rib

Start Date: 8/17/2017

Required Date: 8/18/2017

Start Qty: 21.00

Required Qty: 21.00

Comments: IPP RevA: new issue DD 09.11.26 verified by:EC IPP Rev:B as
per dwg revA 10.03.15 verified by:EC IPP Rev:C as per dwg
RevB DD 10.04.16 verified by:EC IPP Rev:D as per dwg revC DD
10.08.18 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TS0.500W.049		Purchased				100	f	739.3468	0.5558	12.28611			

M304TS0 500W 049

Square Tubing

**

D.M.L 2017-8-22

Location

Loc Qty

Loc Code

WA004

739.34684

137992

13

M136011

4.64684

M137257

30.5

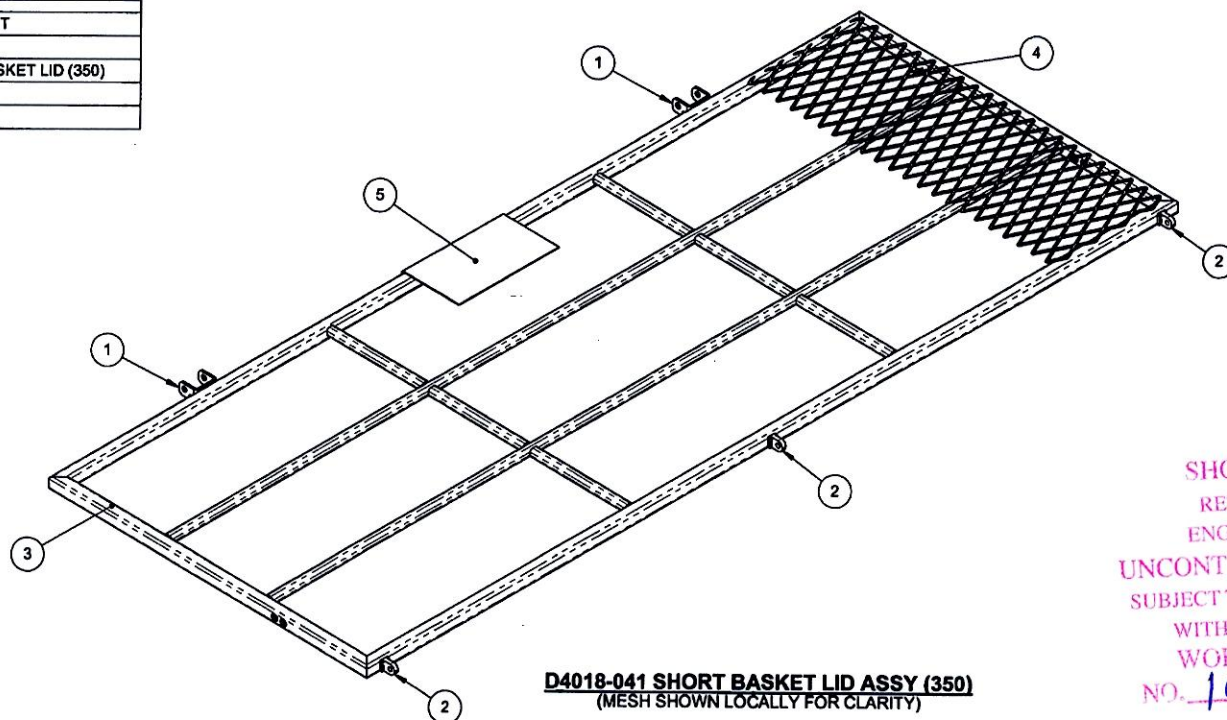
M137992

104.2

M138186

600

ITEM	QTY	P/N	DESCRIPTION
	X	D4018-041	SHORT BASKET LID ASSY (350)
1	2	D2581	MOUNTING BRACKET
2	3	D4016-3	HINGE HALF, LID
3	1	D4018-101	TUBULAR ASSY, BASKET LID (350)
4	1	D4020-7	MESH
5	1	D4021-3	DATA PLATE



D4018-041 SHORT BASKET LID ASSY (350)
(MESH SHOWN LOCALLY FOR CLARITY)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 165248 M15
1708-17

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER DART QSI 005 4.3
APPLY BLACK ANTI-SKID PAINT TO OUTSIDE SURFACE OF MESH PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: SCRIBE DART P/N AND B/N USING 0.13 (MINIMUM) HIGH LETTERING PER QSI 044 6.4
- 7) WEIGHT: 14.6 lbs APPROX
- 8) MASK HOLES PRIOR TO FINISHING
- 9) WELD PER DART QSI 004
- 10) MASK THIS AREA TO FINISH

E	ALL DETAIL/SECTION VIEW LETTERS UPDATED. SHEET 1: D2728-3 DELETED. UPDATED NOTE 6, ADDED NOTES 10. SHEET 2 ADDED VIEW E-E. (PAR15-418)	AJS	16.11.24
D	C7-3 D4035-043 WAS D4035-041 (REASON: PROFORM OPTION DELETED).	AJS	13.07.18
C	REMOVED D4088-232. UPDATED DETAIL E ACCORDINGLY (C8-2). REASON: NOW INSTALLED BY OPERATORS PER D350-607-2 REV. C AND D350-607-3 REV. A.	MB	10.08.05
B	BOM: INSERTED QTY 1 D2728-3 AS ITEM 5 & QTY 1 D4088- 232 PLACARD AS ITEM 7. ITEMS RENUMBERED AS REQD. SHEET 2, NOTES: PAINT SPEC ADDED & NOTE 7 & 8 REVISED. (B4-2) FRONT VIEW ADDED, WELDING SYMBOLS REVISED. DETAIL VIEW E ADDED (C4-2)&(C82). SIDE VIEWS ADDED (C1-1)&(D1-1).	JPH	10.03.25
A	NEW ISSUE	JPH	10.03.04

REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	JMH		
MFG. APPR.	DD		
APPROVED	WM		
DE APPR.	DS		
DATE	16.11.24		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D4018** REV. E
SHEET 1 OF 5
TITLE **SHORT BASKET LID ASSY (350)** SCALE NTS

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RELEASED
2017-06-07
EN 17-580

APPROVED

DQA: _____ Date: _____

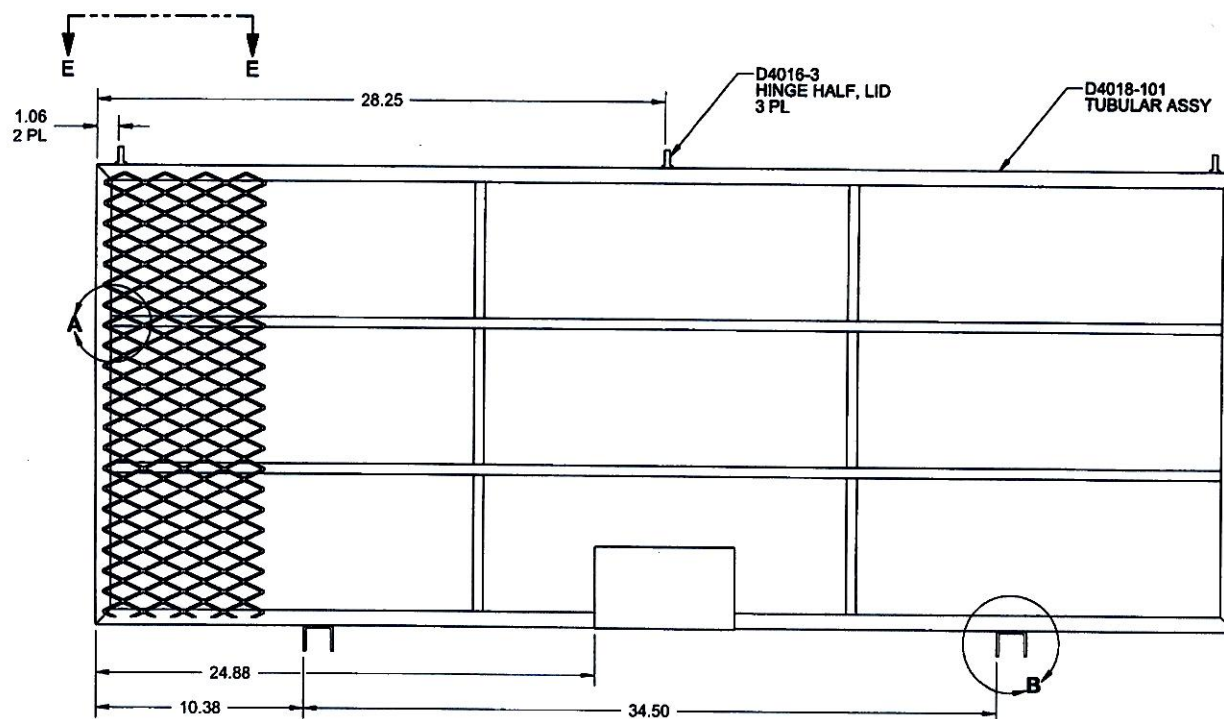


WORK ORDER NON-CONFORMANCE / UPDATE

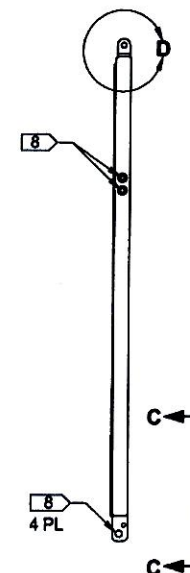
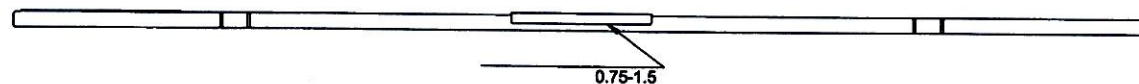
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



D4018-041 SHORT BASKET LID ASSY (350)
(MESH SHOWN LOCALLY FOR CLARITY)



RELEASED
2017-06-07

APPROVED

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	JMH	DRAWING NO.	REV. E
MFG. APPR.	DD	D4018	SHEET 2 OF 5
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	SHORT BASKET LID ASSY (350)	NTS
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WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

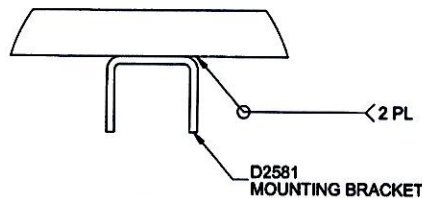
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

TACK WELD MESH
AT EVERY AVAILABLE
LOCATION

D4020-7
MESH

DETAIL A
2 PL
SCALE 3X

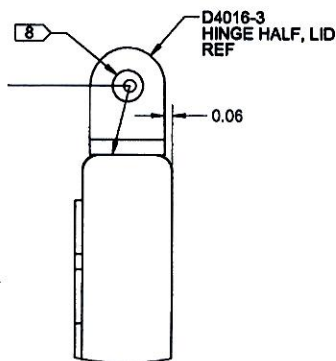


DETAIL B
2 PL
SCALE 3X

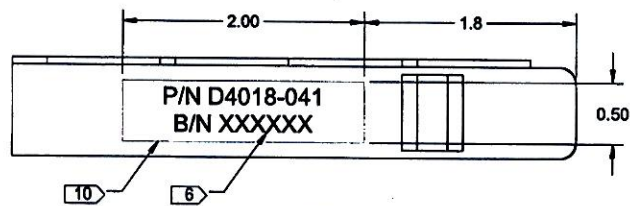
TACK WELD MESH
AT EVERY AVAILABLE
LOCATION

D4021-3
DATA PLATE
REF

VIEW C-C
SCALE 3X



DETAIL D
3 PL
SCALE 3X



VIEW E-E
SCALE 6X

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2017-06-07

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DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JMH	DRAWING NO.	REV. E
MFG. APPR.	DD	D4018	SHEET 3 OF 5
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	SHORT BASKET LID ASSY (350)	NTS
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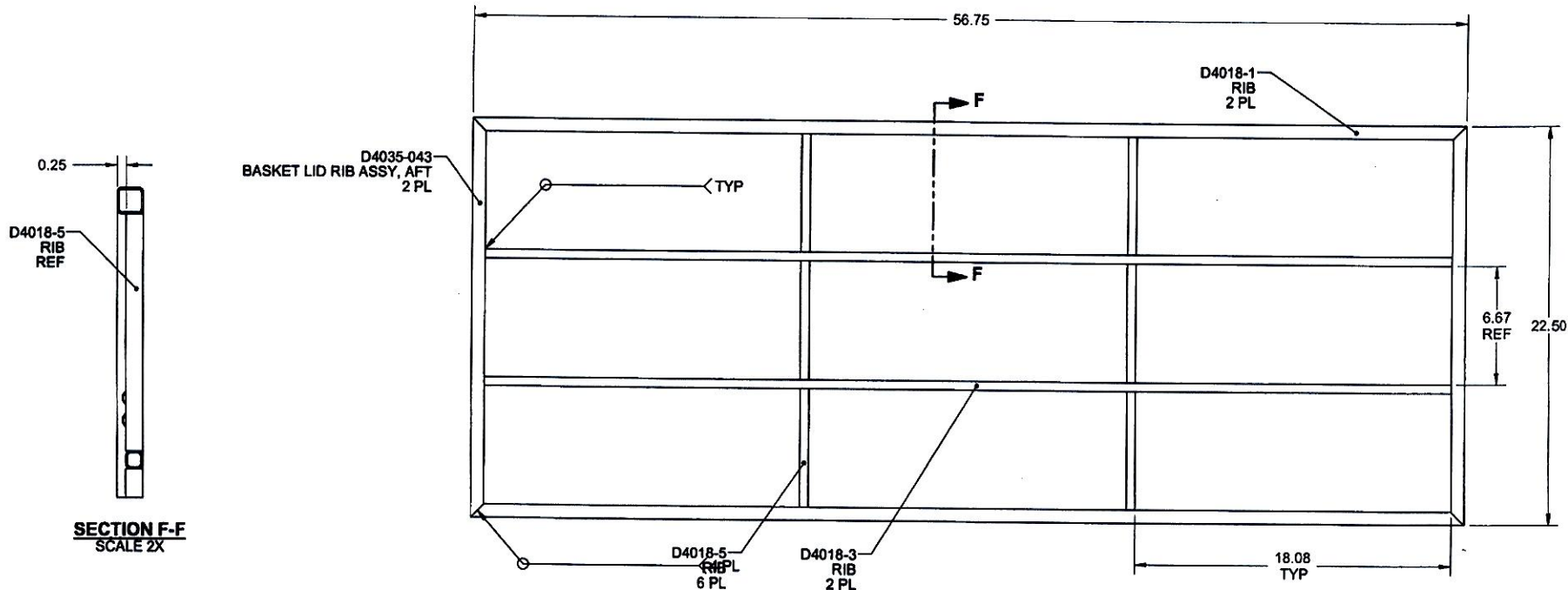
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

ITEM	QTY -101	P/N	DESCRIPTION
	X	D4018-101	TUBULAR ASSY, BASKET LID (350)
1	2	D4018-1	RIB
2	2	D4018-3	RIB
3	6	D4018-5	RIB
4	2	D4035-043	BASKET LID RIB ASSY, AFT



8 D4018-101 TUBULAR ASSY, BASKET LID (350)

- NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 9.06 lbs
 - 8) TOLERANCE FOR XX.XX DIMENSIONS 0.06 FOR D4018-101
 - 9) WELD PER DART QSI 004

RELEASED
2017-06-07

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DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS	DRAWING NO.	REV. E
CHECKED	JMH	D4018	SHEET 4 OF 6
MFG. APPR.	DD	TITLE	SCALE
APPROVED	WM	SHORT BASKET LID ASSY (350)	NTS
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DATE	16.11.24		

DQA: _____ Date: _____

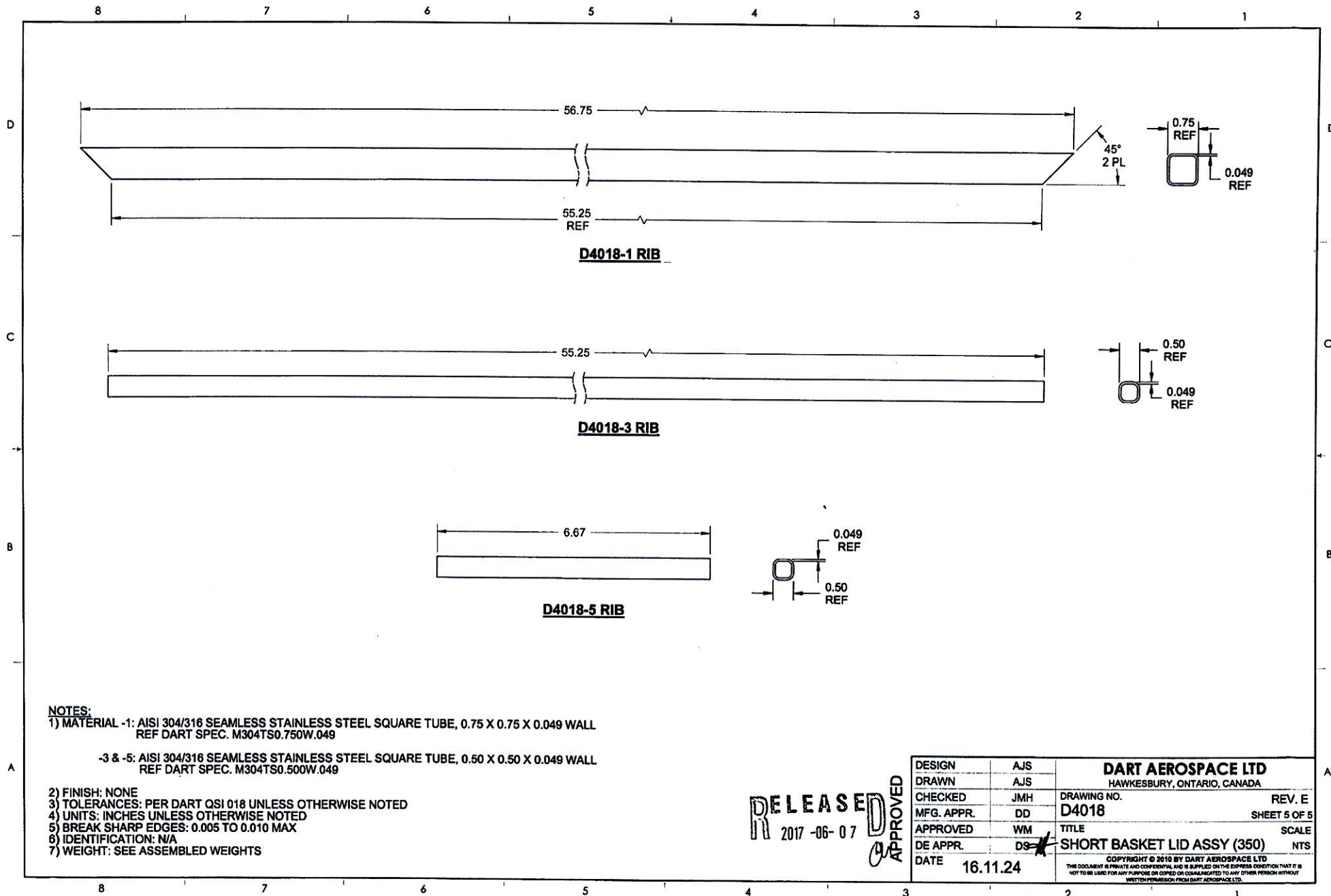


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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					